

TID Illustrator Once Famous For Paintings, Industrial Design

In case somebody is wondering, it was Ed Fortier who designed the plaque that adorns the new Thompson Aeroballistics Laboratory as well as the medallions that were presented to Dr. Thompson and Dr. McLean last week.

Who is Ed Fortier? He's a scientific illustrator in the Technical Information Department, and a mighty good one. In fact, the Station likes to call on him for projects in which they place quite a bit of importance. The L. T. E. Thompson Award is a good example. Ed not only worked out a highly satisfactory design for both the medalion and the plaque, but also took care of the legwork to make sure that they were manufactured in time for the presentation.



Ed has been at NOTS since September, 1951, but he's been an artist and an illustrator all his life. He first saw the area around NOTS back in 1926 while doing some free-lance painting around Death Valley. At that time there was nothing but dirt roads, a few Indian horses, and a couple of prospectors in sight. People were travelling across the desert in wagons, and Ed says that the only places that showed any signs of activity were the mining towns of Randsburg and Johannesburg.

Ed sold every painting he made in those days, and a little later on he became known as one of the finest monotypists in the country. Six of his paintings are still on display in San Francisco's St. Francis Hotel, and many more in galleries all over the country.

During this time he helped to form the once famed California Etchers Association which included the famous names of Lionel Barrymore and Henry DeCruif in its membership.

In 1930, Ed turned to the commercial designing of dinnerware and proceeded to establish quite a name for himself in this field also. He worked for many years as an industrial designer for Vernon Pottery and was also art director of the American Pottery Company.

During the war, Ed used his industrial designing genius at Consolidated Vultee and Southwestern Engineering. Originally from Grand Rapids,

Hydrofoil...

(Continued from Page 3) designed a completely new hydrofoil configuration. Tom's weekends for a period of six months were given over to theoretical calculations in hydrodynamics, stability, and stress analysis. The new design was completed in May 1954, and its performance is still being improved.

During one test performance at Salton Sea, during a high wind storm, the waves were about two feet high and rough enough to keep most boats off the water. The characteristics of the Lang hydrofoil were almost unbelievable. The front hydrofoil actually emerged several times, but still the ride was glass smooth. The top speed while bucking this high wind was only about two miles per hour less than in calm water.

The feature of comfort is phenomenal. "In our boat," Tom says, "you could read a book at 30 mph. In a regular boat, you can hardly hold a book at that speed."

In the last year the Langs have designed and tested four new hydrofoil shapes, which may be incorporated in a new hydrofoil configuration. The new model will probably decrease the weight of the attachments from the current 300 pounds to 100 pounds. This change will improve performance as well as simplifying construction.

Red Stickers Will Be 1957 License Tags

California vehicle registration will be renewed for next year by attachment of a reflectorized red sticker, marked for 1957, to your rear license plate.

The Department of Motor Vehicles announces that annual renewal procedures otherwise will include the features familiar in recent years. Pre-punched cards setting forth fees for the new year will be mailed to all registered owners of vehicles immediately after Christmas. Applications for the validated registration cards and stickers will be received at 115 DMV field offices, at additional points served by traveling registration crews, at 100 temporary stations in selected banks, by authorized auto clubs and associations, and by mail.

Paul Mason, state director of Motor Vehicles, said the stickers will replace the metal tag issued in former years as a renewal token. They are red in color, with black letters and numerals reading "California 1957," and are 1 1/2 by 1 1/2 inches in size.

"The motoring public will find several advantages in this device," Mason said. "They are easier to attach to the rear license plate than the metal tabs. They reflect light, thus adding a new visibility point to the rear end of the vehicle and adding a safety factor in night driving. Finally, they cannot be removed from a license plate without being destroyed or mutilated, thus adding a protection against theft or fraud, or evasion of the law by illegal transfer."

The renewal period dates are from January 2 through February 4, 1957. A small number of motorists who purchase vehicles after December 1, 1956, will be required under the law to register for the full year 1957, and will receive their '57 certificates and sticker upon registration.



DATAPLEXER—Donaldson's device for doubling IBM data output. Donaldson's 'Dataplexer' Sent To Patent Office For Evaluation

Earl J. Donaldson, Electronic Technician in the Aviation Ordnance Department was awarded a \$140 check this week for a beneficial suggestion entitled "Duplex Automatic Switch." The suggestion has been submitted to the patent office under the new name of "Dataplexer."

The Dataplexer is a remote device which provides the automatic recording from two data reduction machines (on IBM cards) in one summary punch, thereby doubling the daily output of the IBM machines in use for data reduction.

Donaldson's Dataplexer is in great demand. It has already been put to use at several other government activities (Point Mugu and Aberdeen Bombing Mission, Edwards Air Force Base.) In addition, the Australian government and the Royal Canadian Air Force have requested permission to use the Dataplexer. This suggestion has been forwarded to the Office of Industrial Relations in Washington, D. C. for further consideration.

Burroughs Lists 55 Standout Scholars

Scholarship took the spotlight at Burroughs High recently as 55 students were listed as members of the local chapter of the California Scholarship Federation by Miss Anne Woolfenden, faculty advisor. Membership in this statewide scholastic honorary is determined on a basis of points with 10 points required, eight of which must be earned in scholarship with 3 points for an "A" grade, and 2 points for a "B." Points may also be earned in extra-curricular participation with scoring according to school service value.

Accenting their motto of "Scholarship and Service" this year the group assisted with school orientation activities for new students and is acting as host to Gita Thoma, foreign exchange student. The group also will complete an educational trip to a nearby city and will hold a banquet in February to honor new and life members.

Named on the federation for grades earned last spring semester were senior students Janet Ambrogio, Myrna Carter, Mary Susan Hagerman, Joyce Hutton, Joyce Kirby, Margaret Kraynyk, Larry Lapin, Elizabeth Pike, Sharen Pinkerton, Patricia Pruitt, Gary Reynolds, Anne Rockwell, Jimmie Vaughan, Linda Westfall, and Charles Walker. Juniors named include Darlene Bettger, Jay Carty, Florence Childers, Linda Dial, Sybil Donaldson, Louanne Downey, Marilyn Doyle, Fred Gay, Margaret Jackson, Ann Jagiello, Robert LaCombe, Janice Nicol, Jeanette Parker, Darline Todd, Margaret Waldron, Patsy Westfall, Judy Wilson, Sandra Witt, and Stuart Young.

Sophomores on the list include Carolyn Barker, Charles Christensen, Sharon Christie, Leah Cornish, Carolyn Haycock, Mary Anne Highberg, Lela Hilborn, Linda Jacobson, Martha Keller, Charles Lenkner, Celeste Neipp, Paul Neipp, Patricia Rickhoff, Dianne Renne, Carolyn Ridpath, Alan Robinson, Bob Roseth, Joe Shea, Wayne Smith, Mio Stith and Martha Walden.

Officers of the honorary are Margaret Waldron, president; Sharen Pinkerton, vice-president; and Sandra Witt, secretary.

No freshmen students were listed since the grading period was for last spring.

Red Cross Will Sponsor Home Nursing Course

A home nursing course sponsored by the American Red Cross is being organized locally to help develop skills in the home care of the sick and to increase an awareness of health conditions within the family and community. Enrollments are now being accepted by Jane LaRosa, 304-A Forrestal.

The six-week course will meet for two and one-half hours weekly under the direction of two trained instructors. Classes will start when the enrollment complement is filled.

ROCKETEER



AEROLAB DEDICATION—Principals in the recent dedication of the Thompson Aeroballistics Laboratory were: (l. to r.) Adm. P. D. Stroop, who delivered the dedicatory speech; Dr. L. T. E. Thompson, the honoree; Dr. William B. McLean, NOTS Technical Director; and Capt. F. L. Ashworth, Station Commander.

Thompson, Stroop Laud NOTS In Aeroballistic Lab Dedication

"The new aeroballistics laboratory is a symbol of the Station and the way things are done here," said Dr. L. T. E. Thompson at the dedication ceremonies for the new lab last Friday afternoon.

Following an invocation by Chaplain James D. Hester, Captain F. L. Ashworth, Station Commander, welcomed the large gathering and referred to the dedication as one of the many milestones that he had been privileged to participate in while serving on the Station.

Capt. Ashworth introduced Rear Admiral P. D. Stroop who made the dedicatory address and unveiled the plaque in honor of Dr. Thompson. RAdm. Stroop enumerated the accomplishments of Dr. Thompson and told of the large and effective staff of scientists that was assembled by him back in the early days of NOTS, and the philosophy that was instilled that even today is so vital to the Station's progress.

Speaking for the Bureau of Ordnance, RAdm. Stroop said that the new Thompson Aeroballistics Laboratory had already demonstrated its ability to perform up to the standards of the Bureau's aeroballistics team.

Dr. William B. McLean, present Technical Director, also paid tribute to the imagination and foresight of Dr. Thompson and presented him with a small replica of the plaque that will adorn the structure.

In his acknowledgement address, Dr. Thompson told how the lab was completely conceived, designed and built by the staff of the Research Department's Ballistics Division. "The fact that such a job could be done internally," he said, "is one of the real achievements of the Station."

He deemed it "a priceless asset" to have the facilities for further development, and also paid tribute to the good community life at NOTS which he considered just as vital to the work being done here.

Dr. Thompson ended by expressing his gratitude to the Station for bestowing the honor upon him, and to the Bureau of Ordnance for making the project possible.

The ceremonies closed with benediction by Chaplain Hester.

NOTS Chapel Will Hold Thanksgiving Day Service

A community Thanksgiving service will be held Thanksgiving day in NOTS Chapel at 10 a.m. under the auspices of Indian Wells Valley Ministerial Fellowship.

The sermon will be preached by Station Chaplain James D. Hester and Robert C. Rupert will be special soloist.

Ordnance Association In Three Day Station Meet

A three-day conference of the Guided Missile Branch of the American Ordnance Association will end at China Lake today when a notable group of military and industrial leaders leave by chartered plane for Los Angeles.

NOTS was the host for the annual meet which featured presentations and discussions of guided missiles by military and civilian missile experts.

The American Ordnance Association was founded in 1919 to foster among all American citizens an understanding of the importance of science and industry in relation to our national defense. Its principle purpose is to keep available the highly specialized knowledge necessary for arming the nation's manpower by stimulating interest in the design, production, and maintenance of our weapons of defense.

Visitors to the Station included Gen. Omar N. Bradley (Ret), Bulova Research and Development Laboratories; along with two former Station Commanders, Adm. W. V. R. Vieweg, General Dynamics Corporation, and Adm. P. D. Stroop, Deputy and Asst. Chief, BuOrd, Navy Dept.

Also in attendance were: Admiral G. F. Hussey Jr. (Ret.), President, American Ordnance Association; General Burton O. Lewis, Staff Consultant, American Ordnance Association; General H. Hinrichs, Deputy Chief of Ordnance, Army Dept.; Admiral C. B. Martell, Deputy Director, Naval Intelligence.

Also: Adm. M. F. Schoeffel (Ret), General Precision Equipment Corporation; Brig. Gen. D. R. Ostrand, USAF, Research and Development Command; General J. Colby, Commanding General, Frankford Arsenal, U.S. Army; Maj. Gen. H. N. Toftoy, Commanding General, Redstone Arsenal, U.S. Army; Adm. W. H. Ashford Jr. (Ret), Electric Storage Battery Co.; and Col. R. E. Garner, USMC, Director, Guided Missiles, BUAir.

Local TV Owners Asked For 'Fair Share' in Booster Drive

Did you know that the cost of TV for one year in China Lake is less than the cost of TV for one month in Barstow? And Barstow has the lowest rate for piped-in TV in the country.

Did you know that a survey of nearby desert towns shows an average yearly cost of \$100 per TV set? And this doesn't include the initial cost of from \$25 to \$200 for coaxial cable hookups.

China Lake and Ridgecrest residents are being asked to give \$5 for their TV reception to pay for the power line booster which supplies it. These surprising statistics were recently announced by the local "Boost the Booster" committee in an effort to raise funds to pay off the community debt on the TV power line booster on Laurel Mountain.

All of China Lake and Ridgecrest will be canvassed by volunteer solicitors, and a "fair share" of \$5 per set will be collected from those willing to "Boost the Booster."

The Booster committee also announced improvements that are currently being made in the local TV reception. Channels 2 and 4 are receiving new experimental amplifiers which are expected to be in operation by December, and channels 11 and 13 are also being modified to increase signal strength.

TV set owners are advised to make sure that their antennas are pointed toward the Laurel Mountain booster for maximum reception. Two 1000-watt lights have been installed to assist in this operation.



CAPTAIN MYERS TO NEWPORT—Capt. R. L. Myers (right), Station Supply Officer since July of 1954, welcomes Cdr. J. M. Shea who will replace him. Capt. Myers will report to the Newport Supply Depot, Newport, R. I., as Commanding Officer. The Newport Depot is one of the Navy's largest supply headquarters. Cdr. Shea, the new NOTS Supply Officer, was formerly Sr. Asst. Supply Officer.



MARINE BIRTHDAY—Lt. Col. H. V. Joslin, USMC, cuts the cake on the 181st birthday of the United States Marine Corps in a ceremony held at the Commissioned Officers Mess last Saturday night. Capt. F. L. Ashworth, Station Commander (left background) also participated in the fete for the local Marines.

ROCKETEER Published every Friday at the UNITED STATES NAVAL ORDNANCE TEST STATION Captain F. L. Ashworth, United States Navy Commander

Children's Film Series Opens

Sale of Children's Film Society membership cards for the 1956-57 season will be held at the China Lake elementary schools next Wednesday. Membership costs 50 cents, and entitles the holder to admission to the complete series, consisting of one Saturday morning showing each month from November through June.

- November 24 Chata (life of a girl in Mexico; feature). Madeline (cartoon of Bommelmann's classic). -Cartoon. December 8 Morning Star (pastoral film of Arizona shepherd). Silent Night (story of the Christmas carol). Skating Fantasy (Barbara Ann Scott). -Cartoon.



GROUP SUPERIOR ACCOMPLISHMENT—A \$200 group Superior Accomplishment Award is earned by the Cost Control Group, Transportation Division in Public Works Department for their contribution in minimizing program expenditures and increasing management efficiency.



HEAVY SUGGER—C. V. (Chuck) Bradley (left), Quarterman in the Maintenance Division of Public Works Department receives a Beneficial Suggestion award check for \$120 from Capt. G. H. Carrithers, Public Works Officer. The award is based on the suggested use of a combination trash and cleaning cart resulting in the saving of over \$3640 annually to the government.



Lt. (jg) J. C. Alex, Athletic Officer, recently announced a "Sports Night" to be held in the Station Gym on Thursday, Dec. 6, at 8 p.m.

The event will feature five 3-round boxing bouts between servicemen on the base with the winners to receive handsome trophies. Any other servicemen or civilians interested in participating in the bouts may do so by contacting Bernie Locker at the Station Gym on weekdays from 4:30 to 8:30 p.m.

This event proved to be terrifically popular with Station residents last year, with more than 1200 attending, and there has been some additional entertainment scheduled this year. A track team from Edwards Air Force Base and Judo experts from Barstow will also be in attendance. Admission is free and we can assure you that it's something you won't want to miss.

Two Navy balloonists recently rode to the stratosphere for a new altitude record in a pressurized gondola that NOTS employees helped to test and evaluate. The balloon, which took off from Rapid City, S.D., rose to 78,000 feet, more than 3,000 feet higher than the previous record.

NOTS Engineers Contribute To Record Ascent of Stratolab

Environmental simulation tests of the gondola were made on the Station in June of 1956. A simulated "flight" reaching an altitude of 62,000 feet was carried out in the environmental chamber and the major problems to be encountered in actual flight were ironed out. The Stratolab, as it is called, affords an extremely low velocity, stable platform for conducting observations and experiments at high altitudes.

Superintendent's Notes

It is a well known fact that there is a teacher shortage and that it will continue for some time. Almost every civic organization is concerned and has one or more projects established for the purpose of teacher recruitment. The National Education Association, the California Teachers Association, the California Congress of Parents and Teachers, the California School Boards Association, and the California State Department of Education are among the active organizations which have definite programs of action.

Guardian of Our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war. It is upon the maintenance of this control that our country's glorious future depends.

The local Rockets are ready to start an 18-game schedule in the Mojave Desert Inter-Service basketball league, and from all indications they are loaded with talent; that is if you figure a 6'8" center from the University of North Dakota as any indication. The Inter-Service basketball league will get underway on December 3, and Station residents who wish to enter a team are encouraged



BENEFIT BARBERSHOPPERS—One of the barbershop quartets that will appear in the Dec. 1 benefit show to pay off the \$12,000 loan on the local TV Booster is the Crown City Four. The group is one of the most popular quartets on the west coast, and will appear along with Art Baker and other well known talent.

Job Opportunities

Clerk (Typing), GS-4. Position is located in Scheduling Branch of Test Department. Duties include information dissemination, report editing and preparation, and general clerical work. Call Ext. 71577 or 71514.

Quarterman Rigger CS Exam Open

A Civil Service examination for Quarterman Rigger vacancies at NOTS has been announced by the Executive Secretary, Navy Board of Examiners, Eleventh Naval District (Northern Sector). Applications must be received or postmarked not later than November 28, 1956.

Precinct 6 Elects Runchey

Information submitted to the ROCKETEER last week regarding precinct elections to the Community Council board of directors failed to include the name of Al Runchey from precinct 6 who was elected for a one year term.

What's Doing IN RECREATION

By Helen Michel, Recreation Director. Pug Pilcher's Band will provide music for the pre-holiday dance to be held at the Community Center, November 30, for all adults residing on the Station. These monthly dances have been very successful and all attending have had a good time. We suggest you plan now to attend this event sponsored by the NOTS Recreation Division. There will be no admission charge.

Chess Club

Among the many fantastic stories told about the origin of chess, there is one which historians have repeated so persistently that there may be a grain of truth in it. It ascribes the invention to Sissa, a Brahmin, in the court of the Indian Rajah Bahallat. The King had asked the wise man to create a game that should demonstrate the value of such qualities as prudence, diligence, foresight and knowledge.

SHOWBOAT Starting Times 6 and 8 p.m. Daily. Kiddie Matinee (Special Movie) 1 p.m. Saturday. TODAY: "BEST THINGS IN LIFE ARE FREE" (104 Min.) Dan Dailey, Sheree North. A flaming portrait of the jazz age, and the guys and gals who made it rock 'n' roll. The wonderful era when everyone was boating out to many wonderful songs! SHORT: "Magic in the Sun" (9 Min.)

SAT. "REBECCA" (130 Min.) NOV. 17 Laurence Olivier, Joan Fontaine. In this new age of psychoanalysis the re-creation of "Rebecca" will hold a new fascination for theatre audiences which is more complex of psychology and personality complex than at the time this picture was released sixteen years ago.

MATINEE "TALL IN THE SADDLE" (79 Min.) NOV. 16 John Wayne. SHORTS: "Cold War" (7 Min.) "Monster and the Apes" No. 7 (18 Min.)

SUN.-MON. "MAN FROM DEL RIO" (82 Min.) NOV. 18-19 Anthony Quinn, Katy Jurado. Every fast gun in the West wanted to test his speed—fast! Hero follows a hated gang-banger into Meja where he becomes Sheriff, and the action explodes!

TUES.-WED. "EVERYTHING BUT THE TRUTH" (84 Min.) NOV. 20-21 Maureen O'Hara, John Forsythe. Water buffalo, stampede, giant spiders, carnivorous piranha fish, and a struggle with a bog constructor make this a real "wacky" Rio de Janeiro jungle fiction. SHORTS: "Wide Wabbit" (7 Min.) "Land of Legend" (10 Min.)

THURS. "TENSION AT TABLE ROCK" (98 Min.) NOV. 22 Richard Egan, Dorothy Malone. A western with a gunnison being wrongly accused of shooting down his buddy in the back, giving rise to a legend of cowardliness which follows the reforming gun man through his subsequent travels across the great southwest. SHORTS: "To Boo or Not to Boo" (7 Min.) "Dancers of the Deep" (6 Min.)

News from Pasadena Annex



LANG HYDROFOIL—Tom Lang, of UOD's Guidance and Control Division, is shown here with his father, Glenn Lang, during a cruise at Moris Dam. The hydrofoil, built by the Langs, rises about a foot above water as it gathers speed.

Trygon Conversion Nears Completion

The before-and-after pictures of the Trygon, below, represent four months of work and a considerable investment for NOTS. This versatile craft is NOTS' deep-depth launching and test facility. She can be used also as a cargo vessel, and if tentative plans are completed, may be used as a water-and-fuel barge for our small craft.

UOD Engineer and Father Design Successful Hydrofoil

For the past four years, Tom Lang and his father have shared a fascinating hobby. Tom became interested in hydrofoils in 1952, snared the interest of his father (who is a hydraulic engineer with the U. S. Geological Survey), and the father-and-son pair have been experimenting ever since.

Their present hydrofoil model is a 14-foot Gaspar boat, equipped with a 25-horsepower Johnson outboard motor, and fitted with one bow V-foil and two stern V-foils. This model was the thirteenth in a series, and the Langs have been improving its performance steadily during the last two years.

Experiments and refinements—different propellers and finer adjustments of angles of the foils—have resulted in a boat which will, with five passengers, outdistance any normal boat with a 40-horsepower motor with one passenger. The Lang hydrofoil will do 33 mph with five passengers, it has attained 35 mph with one passenger, and 30 mph with two passengers plus a water-skier.

The principal advantage of the hydrofoil is the smoothness and comfort of the ride. Life Magazine, in 1954, described hydrofoils in this way: "Some of the strangest boats ever devised are today skimming over the water like water bugs, their hulls appearing to float ethereally above the surface. This waterborne flight is made possible by hydrofoils, literally 'water wings,' finlike structures attached to the hull by struts. When the boat is at rest or moving slowly, the hydrofoils extend down into the water. But when the boat picks up speed, the water moving past the hydrofoil creates greater pressure on the bottom than on top and, as in an airplane wing, produces 'lift.' The foil rises toward the surface, pushing the boat up so that it rides along as if on stilts."

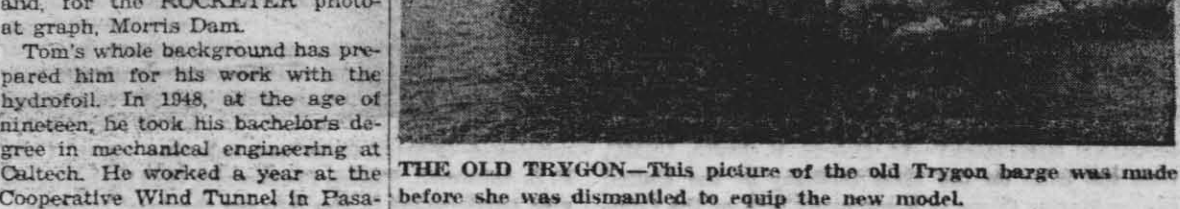
The Langs have to be prepared to answer questions wherever they go and they have covered a lot of ground—land and water. Tom and Glenn Lang have taken camping and fishing equipment in the hydrofoil up Lake Mead for a weekend trip of about 150 miles by boat. With Steve Caspar and Paul Warnshuis, Tom has taken the hydrofoil on a 120-mile scenic cruise around the Clear Lake shoreline in a traveling time of four hours at partial throttle.

The hydrofoil has been operated at sixteen different locations: seven times at Salton Sea, six at Lake Havasu, five at San Pedro, three times each at Puddingstone Reservoir and Palm Beach (at Long Beach), twice at Lake Mead and Lake Mojave, and once at the Sacramento River, Lake Tahoe, Clear Lake, Millerton Lake, Eneanada Bay, Balboa Back Bay, Santa Barbara, and, for the ROCKETEER photo at graph, Morris Dam.

Tom's whole background has prepared him for his work with the hydrofoil. In 1948, at the age of nineteen, he took his bachelor's degree in mechanical engineering at Caltech. He worked a year at the Cooperative Wind Tunnel in Pasadena, then took another bachelor's at Caltech, that time in Civil Engineering.

He spent a year in stress analysis at North American Aviation before coming to NOTS where he worked a year in preliminary design and has since been engaged in hydrodynamics work in the Guidance and Control Division. During these last years of employment he has also picked up a degree in another field—this time a master's in aeronautical engineering at USC.

In 1952, when Tom first became interested in hydrofoils, after reading a NACA report, the Langs constructed their first set of hydrofoils and conducted tests. Changes were obviously necessary, so they made twelve different configurations between February and August 1953. On the basis of these tests, they (Continued on page 4)



THE OLD TRYGON—This picture of the old Trygon barge was made before she was dismantled to equip the new model.

FLAGSHIP OF THE NOTS FLEET—The new, streamlined version of the Trygon is nearly ready for commissioning.